SECTION FIVE

Funding the Program and Controlling Costs

Anticipating and reducing costs of a HHW program, as well as locating funding sources, are major concerns for program planners. However, many communities have found creative ways to finance their programs and effective ways to cut costs.

HHW program costs generally increase as the amount of waste collected increases. It is important to keep in mind, however, that the potential consequences of mismanaged HHW-soil and ground-water contamination, hazardous emissions at landfills, worker injury and equipment damage, interrupted water treatment, and contaminated effluent at water treatment plants-can result in much greater costs.

Factors that Affect costs

A review of the data on approximately 3,000 collection programs held since 1980 indicates that costs for a one-day HHW collection range from as little as $10,000 to more than $100,000. The final cost of a HHW collection is difficult to predict because many variables cannot be estimated or controlled easily. These variables include the number of households that participate, the types and amount of waste collected, and the waste management methods used. Major urban multi-site collection events, targeted farm pesticide collections, and collections in communities located a long distance from hazardous waste disposal facilities will experience higher costs. See box for developing a rough cost estimate for a one-day HHW collection. This formula is based on 1991 estimates of disposal costs. These estimates might need to be adjusted if waste management costs change. This formula is based on much of the work being done by a contractor. Programs that use less contractor help and that rely more on recycling and reuse for waste management will greatly reduce the cost.

Participation

On average, each participant brings 50 to 100 pounds of HHW to a collection, at a cost to the sponsor ranging from $50 to slightly more than $100 per participant. Participation rates usually range from one to three percent of eligible households and can be as high as 10 percent. Suburban communities, especially those with a hazardous waste problem or a solid or hazardous waste facility, experience high rates of participation. Extensive education or publicity programs also can increase participation rates.

Waste Management Methods

Waste management costs are the largest item in the HHW program budget. The overall waste management costs will depend on the types of waste collected and the waste management methods that are used. For example, programs that accept only recyclable materials or provide a “drop-and-swap” area will experience much lower waste management costs and lower personnel costs as well. Reusing or recycling HHW or burning it as a supplemental fuel is less expensive than incinerating the waste at a hazardous waste facility. Pesticides, especially those containing dioxin, and solvent paints and other materials containing PCBs can be very expensive to manage ($850 per 55-gallon drum in 1991). Burning used oil and solvent-based paint as supplemental fuel typically costs the sponsor $175 to $250 in management fees. In 1991, the cost of sending most

other wastes to a hazardous waste incinerator or land disposal facility ranged from $350 to $500 per drum. These costs can vary and might increase over time; the hazardous waste contractor or appropriate state agency can provide current rate schedules.

Other factors will affect waste management costs as well. For example, contractors who own and operate their own TSDFs or have access to facilities close to the collection site might be able to charge less for a collection than other contractors. Communities that are located closer to hazardous waste management facilities also might benefit from lower costs.

Collection Methods

The program's collection method also affects the overall cost. For example, collecting HHW door-to-door is more expensive than holding a drop-off collection day. Permanent programs might be more cost effective than one-day collections. The number of participants might increase with a permanent program; however, in a permanent program, there are often more opportunities to arrange for recycling or reuse of collected materials, resulting in less waste per participant to be disposed of as hazardous waste.

Estimating Costs

There are no proven formulas for estimating cost fora one -day HHW collection. Below is a formula for a very rough cost estimate range:

$$\frac{.01\ H \text{ (low participation)}}{8 \text{ (consolidation)}} \times \$350 + \$5{,}000 = \$\ \_\_\_\_\_ \text{(low estimate)}$$

$$\frac{.03H \text{ (high participation)}}{4 \text{ (no consolidation)}} \times \$350 + \$5{,}000 = \$\ \_\_\_\_\_ \text{(high estimate)}$$

- H is the number of households in the target area.
- The formula produces a range, reflecting a participation rate from one to three percent of the targeted households.
- If oil and paint are to be consolidated, divide the number of expected participants by eight, as shown in the equation, to calculate the number of 55-gallon drums. (It generally takes seven or eight households to fill a 55-gallon drum of waste.) If no wastes are consolidated, divide by four, as shown in the equation.
- $350 is the average cost of treatment/disposal per 55-gallon drum.
- Add $5,000 for set-up and personnel costs.

Local staff time, publicity, and education are additional but are usually not a major cost item for one-day collection programs.

Note: Dollar figures above are 19% estimates.

Ways To Minimize Costs

program sponsors continue to find ways to reduce both overall costs and the average cost per participant. For example:

- Consolidating instead of lab-packing HHW reduces costs by allowing for much more waste per drum. (A lab-pack consists of a large container that holds several smaller containers.) Paint used oil, and antifreeze are frequently consolidated.
- Some programs reduce costs by using volunteers (only for low hazard items) or city or county personnel to receive, consolidate, and package the waste, rather than using contractor staff for these functions.
- The sale of some recyclable items, such as silver-oxide button and lead-acid batteries, can help defray a program's costs.

Of course, one of the best cost-cutting measures is to educate the public about how to reduce HHW generation and how to manage existing HHW without bringing it to a collection center. For example, consumers can bring used **Oil** and antifreeze to some service stations. In addition, wastewater treatment plants in some communities take used oil to discourage improper disposal of this waste and prevent damage to the treatment plant. Generally, car batteries can be returned to the point of purchase.

Obtaining Funding

HHW management program sponsors have obtained funding from a wide variety of sources. They have used state, county, and local general funds; taxes, fees, and penalties; "in-kind" contributions from industry, cities, and districts; and the help of volunteers.

State and Local Governments

The majority of funding for local government programs comes form municipal solid waste budgets. In addition, county and local agencies that benefit from HHW collection days often contribute a portion of their budgets to HHW management programs. Among the agencies that benefit from HHW collections are water and sewer departments, since less HHW is poured down drains; fire and health departments, since less HHW is stored in homes; and public works &partments, since less HHW is discarded with municipal trash. Some state environmental agencies, such as departments of natural resources or the environment also provide funds for HHW management programs. Sources of state funding have included state Superfund budgets, oil overcharge funds, surcharges on environmental services or hazardous products, and special environmental bond issues and trust funds.

Fees and Taxes

Many communities increase landfill tipping fees, property taxes, or water/sewer fees to create a fund for managing HHW. Some communities also have imposed user fees, but these might be a deterrent to participation in the collection program, since household residents in most states legally can throw HHW in their trash.

Some states have instituted specific taxes for HHW programs. For example, the State of Washington has imposed a tax on the first use of certain chemicals by manufacturers or wholesalers. The tax will be used in part, to fired county HHW collections. Retailers in Iowa selling prducts covered under the shelf labeling law pay a $25 registration fee. In New Hampshire, a tax on hazardous

waste generators funds matching grants to communities for HHW collection programs. In Florida, local governments receive three percent of the gross receipts from permitted waste management facilities.

Contributions, In-Kind Donations, And Volunteers

Donations of money, materials, and labor are the lifeblood of many community HHW programs. These donations can come from many different sources:

- **Cities counties, civic groups, environmental organizations, and corporations** often provide seed money or matching grants for collections.
- **Hazardous waste contractors** sometimes donate collection and transportation services.
- **Local industries or businesses** that produce or distribute household products that can become HHW sometimes contribute money or services to HHW management programs because they recognize the importance of product stewardship. In some communities, local printers have donated services for advertising or education materials.

Metrocenter YMCA: Community-Wide Funding for HHW Collection

In late 1986, the Seattle Metrocenter Young Men's Christian Association (YMCA) (see Appendix C for address), the community development branch of the Greater Seattle YMCA launched an impressive campaign to sponsor and fund a HHW collection day in King County, Washington.

Metrocenter decided to seek the help of outside catalysts to develop a HHW collection program. Ultimately 15 cities, King County, and several other public authorities and agencies joined together to sponsor a series of major HHW "roundups" between 1987 and 1989.

Fourteen different local and regional government agencies provided funding for the roundups. Additional financial support was provided by:

. A cigarette tax.

. Revenue from a Department of Ecology tax on hazardous materials sold within the state.

. A water quality fund, a county solid waste fund, and the general funds of cities.

. In-kind contributions from cities, districts, and corporations.

Metacenter also made extensive use of volunteers to stretch its resources for the "roundups." For example, chemistry graduate students performed some of the actual site work.

- **Civic and environmental organizations** can provide volunteers to help plan, publicize, or staff the HHW collection. Volunteers can be used to direct traffic, hand out literature, fill out questionnaires, and handle nonhazardous waste.
- **State and municipal agency staff and** local fire and police departments often provide supervision and traffic control.

Programs can attract direct financial contributions, in-kind donations, and volunteer services by giving donors positive recognition, such as a mention in flyers, an award, or a recognition ceremony. A publicly acknowledged donation from one group or company often encourages others to contribute or participate in some other way.